

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R03-OAR-2021-0307; FRL10636-01-R3]

Determination of Attainment by the Attainment Date for the 2012 Annual Fine Particulate

Matter Standard; Pennsylvania; Allegheny County Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to determine that the Allegheny County, Pennsylvania nonattainment area (NAA) has attained the 2012 annual fine particulate matter (PM_{2.5} or fine particulate matter) national ambient air quality standard (NAAQS) by the December 31, 2021 attainment date applicable to Moderate NAAs. This determination is based upon quality-assured, quality-controlled, and certified ambient air monitoring data for the 2019-2021 period available in EPA's Air Quality Monitoring (AMS) database. The determination is based upon the three-year average of annual mean PM_{2.5} concentrations for each eligible monitoring site being less than or equal to the level of the annual NAAQS of 12 micrograms per cubic meter (μg/m³). This action is being taken under the Clean Air Act (CAA).

DATES: Written comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R03-OAR-2021-0307 at www.regulations.gov, or via email to gordon.mike@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be confidential business information (CBI) or other information

whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **For Further Information Contact** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit www.epa.gov/dockets/commenting-epa-dockets. **FOR FURTHER INFORMATION CONTACT:** Brian Rehn, Planning & Implementation Branch (3AD30), Air & Radiation Division, U.S. Environmental Protection Agency, Region III, Four Penn Center - 1600 JFK Blvd, Philadelphia, PA 19103. The telephone number is (215)

SUPPLEMENTARY INFORMATION: Throughout this document, "we," "us," and "our" refer to EPA.

814-2176. Mr. Rehn can also be reached via electronic mail at rehn.brian@epa.gov.

Table of Contents

- I. Background
- A. The 2012 Annual PM_{2.5} National Ambient Air Quality Standard
- B. Clean Air Act Requirements for PM_{2.5} Nonattainment Areas
- C. Allegheny County Designation for the 2012 PM_{2.5} NAAQS
- II. Evaluation of Attainment Determination
- A. Applicable Statutory and Regulatory Provisions for Determination of Attainment
- B. Monitoring Network Review, Data Quality Assurance, and Data Completeness
- C. EPA Evaluation of Attainment
- **III. Proposed Action**
- IV. Statutory and Executive Order Reviews
- I. Background

A. The 2012 Annual PM_{2.5} National Ambient Air Quality Standard

Under section 109 of the Clean Air Act, EPA has established NAAQS for certain pervasive air pollutants (referred to as criteria pollutants) and conducts periodic reviews of the NAAQS to determine whether they should be revised or whether new NAAQS should be established. EPA established these standards after considering substantial evidence from numerous health studies demonstrating that serious adverse health effects are associated with exposures to these criteria pollutants.¹

Particulate matter includes particles with diameters that are generally 2.5 microns or smaller (PM_{2.5}), and particles with diameters that are generally 10 microns or smaller (PM₁₀). PM_{2.5} can be emitted by sources directly into the atmosphere as a solid or liquid particle (primary PM_{2.5} or direct PM_{2.5}) or can be formed in the atmosphere (secondary PM_{2.5}) as a result of various chemical reactions among precursor pollutants such as nitrogen oxides (NO_X), sulfur dioxide (SO₂), volatile organic compounds (VOC), and ammonia (NH₃).²

On July 18, 1997, EPA first established annual and 24-hour NAAQS for PM_{2.5}.³ EPA set the annual primary and secondary standards to 15.0 micrograms per cubic meter (µg/m³), based on a 3-year average of annual mean PM_{2.5} concentrations. On January 15th, 2013, in order to provide increased protection of public health, EPA promulgated a more stringent annual PM_{2.5} NAAQS, revising the primary standard to 12.0 µg/m³, based on a 3-year average of annual mean PM_{2.5} concentrations -- while retaining the secondary standard at 15.0 µg/m³.⁴

B. Clean Air Act Requirements for PM_{2.5} Nonattainment Areas

The CAA requires states to develop a SIP that provides generally for the attainment,

¹ For a given air pollutant, "primary" NAAQS are those determined by EPA as requisite to protect the public health, allowing an adequate margin of safety, and "secondary" standards are those determined by EPA as requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. See CAA section 109(b).

² 80 FR 15340, 15342 (March 23, 2015).

 $^{^3}$ 62 FR 38652 (July 18, 1997). In October 2006, EPA lowered the 24-hour NAAQS for PM_{2.5} from 65 micrograms per cubic meter (μ g/m 3) to 35 μ g/m 3 . 71 FR 61144 (October 17, 2006).

 $^{^4}$ 78 FR 3086 (January 15, 2013) and 40 CFR 50.18. Unless otherwise noted, all references to the PM_{2.5} NAAQS in this document refer to the 2012 annual NAAQS of 12.0 μ g/m³, codified at 40 CFR 50.18.

maintenance, and enforcement of the NAAQS. In addition, the CAA requires states to make a plan submittal to address nonattainment planning requirements of the CAA. This plan SIP submittal (also referred to as an attainment plan) imposes additional controls for purposes of attaining the PM_{2.5} NAAQS to achieve reductions of PM_{2.5} and PM_{2.5} precursor emissions.

The general CAA part D nonattainment area planning requirements are found in subpart 1 and the specific nonattainment area planning requirements for particulate matter are found in subpart 4. The subpart 1 statutory requirements for attainment plans include the following: section 172(c)(1) requirements for reasonably available control measures (RACM)/reasonably available control technology (RACT) and attainment demonstrations; the section 172(c)(2) requirement to demonstrate reasonable further progress (RFP); the section 172(c)(3) requirement for emissions inventories; the section 172(c)(5) requirements for a nonattainment new source review (NNSR) permitting program; and the section 172(c)(9) requirement for contingency measures.

The more specific subpart 4 statutory requirements for Moderate $PM_{2.5}$ nonattainment areas include the following: the CAA section 189(a)(1)(A) NNSR permit program requirements; the section 189(a)(1)(B) requirements for attainment demonstrations; the section 189(a)(1)(C) requirements for RACM; the section 189(c) requirements for RFP and quantitative milestones; and the section 189(e) requirement for controls on sources of particulate matter precursors.

Under CAA subpart 4, section 188(c)(1) establishes that states with Moderate PM_{2.5} nonattainment areas must provide for attainment in the area as expeditiously as practicable, but no later than the end of the sixth calendar year after designation. For the 2012 PM_{2.5} annual NAAQS, this date is December 31, 2021.⁵ In addition, under subpart 4, direct PM_{2.5} and all precursors to the formation of PM_{2.5} are subject to control unless EPA approves a demonstration from the state establishing that a given precursor does not contribute significantly to PM_{2.5} levels

-

⁵ 40 CFR 51.1004(a)(1).

that exceed the PM_{2.5} NAAQS in the area.⁶

To implement the PM_{2.5} NAAQS, EPA has promulgated the "Fine Particle Matter National Ambient Air Quality Standard: State Implementation Plan Requirements; Final Rule" (also referred to as the PM_{2.5} Implementation Rule).⁷ The PM_{2.5} Implementation Rule provides additional regulatory requirements and guidance applicable to attainment plan submittals for the PM_{2.5} NAAQS, including the 2012 annual PM_{2.5} NAAQS at issue in this action.

C. Allegheny County Designation for the 2012 PM_{2.5} NAAQS

Following promulgation of a new or revised NAAQS, EPA is required under CAA section 107(d) to designate regions throughout the nation as attaining or not attaining these NAAQS. Those regions found not to be attaining the NAAQS are also given a classification that describes the degree of nonattainment. Under subpart 4 of part D of title I of the CAA, EPA designates areas found to be violating the PM_{2.5} NAAQS, and areas that contribute to such violations, as nonattainment and classifies them initially as Moderate nonattainment areas.

Effective April 15, 2015, EPA designated Allegheny County, Pennsylvania, as a Moderate nonattainment area (Allegheny County Nonattainment Area) for the 2012 PM_{2.5} annual NAAQS based on ambient monitoring data that showed the area was above the 12.0 μg/m³ primary standard for the 3-year 2011-2013 monitoring period, based on the area's design value.⁸ A design value (DV) is the 3-year average NAAQS metric that is compared to the NAAQS level to determine when a monitoring site meets or does not meet the NAAQS. The specific methodologies for calculating whether the annual PM_{2.5} NAAQS is met at each eligible monitoring site in an area are found in the Code of Federal Regulations (CFR), at 40 CFR part 50, Appendix N, section 4.1.

II. Evaluation of Attainment Determination

A. Applicable Statutory and Regulatory Provisions for Determination of Attainment

⁶ 40 CFR 51.1006 and 40 CFR 51.1009.

⁷ 81 FR 58010 (August 24, 2016).

⁸ 80 FR 2206 (January 15, 2015).

Sections 179(c)(1) and 188(b)(2) of the CAA require EPA to determine whether a $PM_{2.5}$ nonattainment area attained by the applicable attainment date, based on the area's air quality "as of the attainment date." Generally, this determination of whether an area's air quality meets the PM_{2.5} NAAQS is based upon the most recent three years of complete, certified data gathered at eligible monitoring sites in accordance with 40 CFR part 58.9 The requirements of 40 CFR part 58 include quality assurance procedures for monitor operation and data handling, siting parameters for instruments or instrument probes, and minimum ambient air quality monitoring network requirements. State, local, or tribal agencies operating air monitoring sites, in accordance with 40 CFR part 58, must enter the ambient air quality data and associated quality assurance data from these sites into EPA's Air Quality System (AQS) database. 10 These monitoring agencies certify annually that these data are accurate to the best of their knowledge, taking into consideration the quality assurance findings. 11 Accordingly, EPA relies primarily on AOS data when determining the attainment status of an area. In determining whether data are suitable for regulatory determinations, EPA uses a "weight of evidence" approach, considering the requirements of 40 CFR part 58, Appendix A "in combination with other data quality information, reports, and similar documentation that demonstrate overall compliance with Part 58."12

The 2012 primary annual $PM_{2.5}$ standard is met when the 3- year average of the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50 Appendix N, is less than or equal to 12.0 μ g/m³ at each eligible monitoring site.¹³ For the annual $PM_{2.5}$ standard, eligible monitoring sites are those monitoring stations that meet the criteria specified in 40 CFR 58.11 and 58.30, and thus are approved for comparison to the annual $PM_{2.5}$ NAAQS.¹⁴ Three

-

⁹ 40 CFR part 50, Appendix N, section 3.0.

¹⁰ 40 CFR 58.16. AQS is EPA's national repository of ambient air quality data.

¹¹ 40 CFR 58.15(a).

¹² 40 CFR part 58, Appendix A, section 1.2.3.

¹³ 40 CFR 50.18(b); 40 CFR part 50, Appendix N, section 4.1(a).

¹⁴ 40 CFR part 50, Appendix N, section 1.0(c).

years of valid annual means are required to produce a valid annual PM_{2.5} NAAQS design value.¹⁵ Data completeness requirements for a given year are met when at least 75 percent of the scheduled sampling days for each quarter have valid data.¹⁶

B. Monitoring Network Review, Data Quality Assurance, and Data Completeness

The Allegheny County Health Department (ACHD) is the governmental agency with the primary authority and responsibility under the Commonwealth's laws for collecting ambient air quality data for the Allegheny County PM_{2.5} nonattainment area. ACHD submits annual monitoring network plans to EPA documenting the status of the Allegheny County air monitoring network, as required under 40 CFR 58.10.¹⁷ EPA reviews these annual network plans for compliance with specific requirements in 40 CFR part 58. With respect to the Allegheny County nonattainment area, we have found that the annual network plans submitted by ACHD meet these requirements under 40 CFR part 58, including minimum monitoring requirements.¹⁸

In accordance with 40 CFR 58.15, ACHD certifies annually that the previous year's ambient concentration and quality assurance data are completely submitted to AQS and that the ambient concentration data are accurate, taking into consideration the quality assurance findings.¹⁹

By a letter to EPA dated April 12, 2022, ACHD certified its 2021 ambient air quality monitoring data. EPA issued final 2019-2021 design values on May 25, 2022.²⁰ There are nine PM_{2.5} eligible Federal Reference Method (FRM) or Federal Equivalent Method (FEM) monitoring sites in the Allegheny County PM_{2.5} nonattainment area. Table 1 in this document shows the Allegheny County Area design values for the 2012 annual PM_{2.5} NAAQS for the years 2019–2021 at these nine area monitoring sites.

¹⁵ 40 CFR part 50, Appendix N, section 4.1(b).

¹⁶ Id.

¹⁷ See 40 CFR 58.15(c).

¹⁸ The ACHD 2021-22 monitoring network plan and EPA reviews of that plan are available in the docket.

¹⁹ ACHD's annual data certifications for 2019, 2020, and 2021 can be found in the docket.

²⁰ See EPA's Air Quality Design Values webpage, at www.epa.gov/air-trends/air-quality-design-values.

Table 1. 2019-2021 Annual PM_{2.5} Values for the Allegheny County PM_{2.5} Area

Monitor Name	Monitor ID	Weighted mean (μg/m³)			Comp	lete qu	Certified annual design	
		2019	2020	2021	2019	2020	2021	value 2019- 2021 (μg/m³)
Avalon	420030002	9.9	8.6	9.8	4	4	4	9.4
Lawrenceville	420030008	9.0	7.7	9.8	4	4	4	8.8
South Fayette	420030067	7.7	6.6	7.8	4	4	4	7.3
North Park	420030093	6.8	5.7	-	4	3	-	*
Harrison	420031008	8.6	7.3	8.2	4	4	4	8.1
North Braddock	420031301	9.9	9.0	10.7	4	4	4	9.9
Clairton	420033007	7.9	7.3	9.2	4	4	4	8.1
Liberty	420030064	12.2	9.8	11.8	4	4	4	11.2
Parkway East	420031376	10.8	9.0	10.4	4	4	4	10.0

^{*}North Park has incomplete data sets for 2020 and 2021 (and was shut down in the third quarter of 2021).

As shown in Table 1 in this document, all ambient air monitors in the Allegheny County area except for the North Park monitor site have complete 2019-2021 reporting data capture rates of at least 75%. The North Park monitor site [Monitor ID 420030093] had a fourth quarter 2020 capture rate of 13%. The North Park monitor site was approved for shut down in the third quarter of 2021 in ACHD's "Annual Monitoring Plan for Calendar Year 2021." The data capture rates for the North Park monitor for the 2019-2021 period are shown in Table 2 in this document.

Table 2. Data Capture Rates (%) and Creditable Samples by Quarter (Q) for the North Park Monitor [420030093]

	2019				2020				2021*			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Creditable Samples	14	15	15	14	15	14	15	2	0	0	0	0
Capture Rate	93	100	94	93	100	93	94	13	0	0	0	0

^{*} North Park has incomplete data sets for 2020 and 2021 and was shut down in the third quarter of 2021.

As described in section II.A in this document, the 2012 annual $PM_{2.5}$ NAAQS is met when the 3-year average of $PM_{2.5}$ annual mean mass concentrations for each eligible monitoring site is less than or equal to $12.0~\mu g/m^3$. Three years of valid, annual means are required to produce a valid annual $PM_{2.5}$ NAAQS design value. A year of data meets data completeness requirements when quarterly data capture rates for all four quarters are at least 75 percent from eligible monitoring sites.²¹

Consistent with the requirements contained in 40 CFR part 58, EPA has reviewed the PM_{2.5} ambient air quality monitoring data for the monitoring period from 2019 through 2021 for the Allegheny County nonattainment area, as recorded in the AQS database, and has determined that the monitoring data meets the quality assurance requirements set forth in 40 CFR part 58. In this respect, the data has been deemed usable by EPA for regulatory compliance purposes. As shown in Table 1 in this document, each quarter from 2019 through 2021 is complete, with all four quarters reporting data capture rates of at least 75 percent (with the exception of the North Park monitor, as noted above). The highest certified annual design value for 2019–2021 is 11.2 μg/m3, with all nine ambient monitors below the 2012 annual PM_{2.5} NAAQS of 12.0 μg/m3.

In summary, based on the relevant monitoring network plans, data completeness, and data certifications, we propose to find that the PM_{2.5} data collected from the ambient air monitoring network for the Allegheny County PM_{2.5} nonattainment area are suitable for determining whether the area attained the 2012 annual PM_{2.5} NAAQS by the applicable December 2021 attainment date.

C. EPA Evaluation of Attainment

Under CAA section 188(c)(2), EPA is required to determine within six months of the applicable attainment date whether a nonattainment area attained the standard by that deadline. The 2012 annual PM_{2.5} NAAQS is met when the PM_{2.5} NAAQS design value at each eligible monitoring site is less than or equal to 12 mg/m³. As discussed above, EPA's evaluation on

²¹ See 40 CFR part 50, Appendix N.

whether the Allegheny County $PM_{2.5}$ NAA has attained the 2012 annual $PM_{2.5}$ NAAQS is based on our review of the monitoring data and takes into account the adequacy of the $PM_{2.5}$ monitoring network in the nonattainment area and the reliability of the data collected by the network as discussed in the previous section of this document.

Table 1 in this document provides the 2021 PM_{2.5} design value from the regulatory monitors within the Allegheny County nonattainment area, expressed as a design value for each monitor representing the average of the annual mean values from the 2019-2021 period. The weighted mean for each individual year is also listed. The PM_{2.5} data show that the highest 2019-2021 design value occurred at the Liberty monitor site and was 11.2 μg/m³. No design value for any monitor in the area exceeded the 2012 annual PM_{2.5} NAAQS of 12.0 μg/m³ for the 3-year period prior to the attainment deadline. Based on our review of the PM_{2.5} ambient air monitoring data from the Allegheny County monitoring network, the monitoring sites for the nonattainment area are consistent with the relevant requirements in 40 CFR part 50, as recorded in EPA's AQS database for the area. Therefore, the Allegheny County nonattainment area attained the 2012 annual PM2.5 NAAQS (in accordance with the requirements in 40 CFR 50.18 and Appendix N) by the December 31, 2021 attainment date applicable to Moderate NAAs.

Consequently, EPA proposes to determine, based upon three years of complete, certified data from 2019 through 2021 (that has been both quality-assured and quality-controlled) that the Allegheny County nonattainment area attained the 2012 annual PM_{2.5} NAAQS by the applicable attainment date of December 31, 2021. For purposes of determining attainment by the December 31, 2021 Moderate attainment date, EPA determines that ACHD has met minimum monitoring site requirements under 40 CFR part 58 and that the design values for the 2012 annual PM_{2.5} NAAQS for the years 2019–2021 at the monitors in the nonattainment area are below the standard of 12 mg/m³. On the basis of our review, we are proposing to determine that the Allegheny County nonattainment area attained the 2012 annual NAAQS by the Moderate area attainment date.

III. Proposed Action

Pursuant to CAA section 188(c)(2), EPA is proposing to determine, based on the most recent three years (2019–2021) of valid air monitoring data, that the Allegheny County nonattainment area has attained the 2012 annual PM_{2.5} NAAQS by the applicable attainment date of December 31, 2021.

This proposed determination of attainment by the attainment date does not constitute a redesignation to attainment of the NAAQS. Upon a final determination of attainment by the Moderate attainment date, Allegheny County will remain nonattainment for the 2012 annual PM_{2.5} NAAQS until such time that EPA determines the Allegheny County nonattainment area meets the CAA requirements for redesignation to attainment, including an approved maintenance plan, pursuant to CAA sections 107 and 175A.

EPA is soliciting public comments on this proposed determination of attainment. All received comments will be considered prior to EPA final action.

IV. Statutory and Executive Order Reviews

This rulemaking action proposes a determination for attainment of the $2012 \text{ PM}_{2.5}$ NAAQS based on monitored air quality and does not impose additional requirements. For that reason, this proposed determination of attainment:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate,
 disproportionate human health or environmental effects, using practicable and legally
 permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

This proposed determination of attainment by the attainment date for the Allegheny

County area by the December 31, 2021 Moderate attainment date for the 2012 annual PM_{2.5}

NAAQS does not have tribal implications as specified by Executive Order 13175 (65 FR 67249,

November 9, 2000), because it is not a SIP action approved to apply in Indian country located in

the State. This action will not impose substantial direct costs on tribal governments or preempt

tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental

relations, Particulate matter, and Reporting and recordkeeping requirements.

Adam Ortiz, Regional Administrator, Region III.

[FR Doc. 2023-02682 Filed: 2/7/2023 8:45 am; Publication Date: 2/8/2023]